Figure 1A

```
   1 agagagcagctcccttcccctcggcgaggaggaaggaagaagaaagccagagagagagag
  61 agagatcatcgcagcttctcctccgaccatttgactgcgactgtgattacaacacaccgt
 121 tgatcctacgaaaaagaggtaatggatactggcggcaattcgctggcgtccggacctgat
                             M  D  T  G  G  N  S  L  A  S  G  P  D   13
 181 ggtgtgaagaggaaagtttgttatttctatgaccctgaggtcggcaattactactatggc
      G  V  K  R  K  V  C  Y  F  Y  D  P  E  V  G  N  Y  Y  Y  G   33
 241 caaggtcatcccatgaagccccatcgcatccgcatgacccatgccctcctcgctcactac
      Q  G  H  P  M  K  P  H  R  I  R  M  T  H  A  L  L  A  H  Y   53
 301 ggtctccttcagcatatgcaggttctcaagcccttccctgcccgcgaacgtgatctctgc
      G  L  L  Q  H  M  Q  V  L  K  P  F  P  A  R  E  R  D  L  C   73
 361 cgcttccacgccgacgactatgtctcttttctccgcagcattacccctgaaacccagcaa
      R  F  H  A  D  D  Y  V  S  F  L  R  S  I  T  P  E  T  Q  Q   93
 421 gatcagattcgccaacttaagcgcttcaatgttggtgaagactgtcccgtctttgacggc
      D  Q  I  R  Q  L  K  R  F  N  V  G  E  D  C  P  V  F  D  G  113
 481 ctttattccttttgccagacctatgctggaggatctgttggtggctctgtcaagcttaac
      L  Y  S  F  C  Q  T  Y  A  G  G  S  V  G  G  S  V  K  L  N  133
 541 cacggcctctgcgatattgccatcaactgggctggtggtctccatcacgctaagaagtgc
      H  G  L  C  D  I  A  I  N  W  A  G  G  L  H  H  A  K  K  C  153
 601 gaggcctctggcttctgttacgtcaatgatatcgtcttagctatcctagagctccttaag
      E  A  S  G  F  C  Y  V  N  D  I  V  L  A  I  L  E  L  L  K  173
 661 cagcatgagcgtgttctttatgtcgatattgatatccaccacggggatggagtggaggag
      Q  H  E  R  V  L  Y  V  D  I  D  I  H  H  G  D  G  V  E  E  193
 721 gcattttatgctactgacagggttatgactgtctcgtttcataaatttggtgattacttt
      A  F  Y  A  T  D  R  V  M  T  V  S  F  H  K  F  G  D  Y  F  213
 781 cccggtacaggtcacattcaggatataggttatggtagcggaaagtactattctctcaat
      P  G  T  G  H  I  Q  D  I  G  Y  G  S  G  K  Y  Y  S  L  N  233
 841 gtaccactggatgatggaatcgatgatgagagctatcatctgttattcaagcccatcatg
      V  P  L  D  D  G  I  D  D  E  S  Y  H  L  L  F  K  P  I  M  253
 901 gggaaagttatggaaattttccgaccaggggctgtggtattgcaatgtggtgctgactcc
      G  K  V  M  E  I  F  R  P  G  A  V  V  L  Q  C  G  A  D  S  273
 961 ctatctggggatcggttaggttgcttcaatctttcaatcaaaggtcatgctgagtgcgtc
      L  S  G  D  R  L  G  C  F  N  L  S  I  K  G  H  A  E  C  V  293
1021 aaatttatgagatcgttcaatgttcccctactgctcttgggtggtggtggttacactatc
      K  F  M  R  S  F  N  V  P  L  L  L  L  G  G  G  G  Y  T  I  313
1081 cgcaatgttgcccgttgctggtgctacgagactggagttgcacttggagttgaagttgaa
      R  N  V  A  R  C  W  C  Y  E  T  G  V  A  L  G  V  E  V  E  333
1141 gacaagatgccggagcatgaatattatgaatactttggtccagactatacacttcacgtt
      D  K  M  P  E  H  E  Y  Y  E  Y  F  G  P  D  Y  T  L  H  V  353
1201 gctccaagtaacatggaaaataagaattctcgtcagatgcttgaagagattcgcaatgac
      A  P  S  N  M  E  N  K  N  S  R  Q  M  L  E  E  I  R  N  D  373
1261 cttctccacaatctctctaagcttcagcatgctccaagtgtaccatttcaggaaagacca
      L  L  H  N  L  S  K  L  Q  H  A  P  S  V  P  F  Q  E  R  P  393
1321 cctgatacagagactcccgaggttgatgaagaccaagaagatggggataaaagatgggat
      P  D  T  E  T  P  E  V  D  E  D  Q  E  D  G  D  K  R  W  D  413
1381 ccggattcagacatggatgttgatgatgaccgtaaacctataccaagcagagtaaaaaga
      P  D  S  D  M  D  V  D  D  D  R  K  P  I  P  S  R  V  K  R  433
1441 gaagctgttgaaccagatacaaaggacaaggatggactgaaaggaattatggagcgtgga
      E  A  V  E  P  D  T  K  D  K  D  G  L  K  G  I  M  E  R  G  453
1501 aaaggttgtgaggtggaggtggatgagagtggaagcactaaggttacaggagtaaaccca
      K  G  C  E  V  E  V  D  E  S  G  S  T  K  V  T  G  V  N  P  473
1561 gtgggagtggaggaagcaagtgtgaaaatggaagaggaaggaacaaacaagggtggggcg
      V  G  V  E  E  A  S  V  K  M  E  E  E  G  T  N  K  G  G  A  493
1621 gagcaggcgtttcctcctaaaacataagactcggagcttctaatttcttgctacttttc
      E  Q  A  F  P  P  K  T  *                                    501
1681 tgtctatcaaatgttgctagttaagtttctggagttgttgttgttgtaagcactcctctg
1741 ttttagaggattgagcacggatatgtatttattcgttgcatgtctgaatgatgatatgat
1801 atgacaa
```

Figure 1B

```
   1 gtgcccacaactcctagtaatgactttctcaggcattgttgacacaaattttgctctgag
  61 taaaacttgggaatagagagagactctgagtgagagagagattctgagtgagagacggag
 121 atggaggcagacgaaagcggcatctctctgccgtcgggacccgacggacgtaagcggcga
      M  E  A  D  E  S  G  I  S  L  P  S  G  P  D  G  R  K  R  R   20
 181 gtcagttacttctacgagccgacgatcggagactactactacggtcaaggccacccgatg
      V  S  Y  F  Y  E  P  T  I  G  D  Y  Y  Y  G  Q  G  H  P  M   40
 241 aagcctcaccggatccgtatggctcatagcctaatcattcactatcacctccaccgtcgc
      K  P  H  R  I  R  M  A  H  S  L  I  I  H  Y  H  L  H  R  R   60
 301 ttagaaatcagtcgccctagcctcgctgacgcctccgatatcggccgattccattcgccg
      L  E  I  S  R  P  S  L  A  D  A  S  D  I  G  R  F  H  S  P   80
 361 gagtatgttgacttcctcgcttccgtttcgccggaatctatgggcgatccttccgctgca
      E  Y  V  D  F  L  A  S  V  S  P  E  S  M  G  D  P  S  A  A  100
 421 cgaaacctaaggcgattcaatgtcggtgaggattgtcctgtcttcgacggacttttgat
      R  N  L  R  R  F  N  V  G  E  D  C  P  V  F  D  G  L  F  D  120
 481 ttttgccgtgcttccgccggaggttctattggtgctgccgtcaaattaaacagacaggac
      F  C  R  A  S  A  G  G  S  I  G  A  A  V  K  L  N  R  Q  D  140
 541 gctgatatcgctatcaattggggcggtgggcttcaccatgctaagaaaagcgaggcttct
      A  D  I  A  I  N  W  G  G  G  L  H  H  A  K  K  S  E  A  S  160
 601 gggttttgctatgtaaacgacatcgtgctagggattctggagttgctcaagatgtttaag
      G  F  C  Y  V  N  D  I  V  L  G  I  L  E  L  L  K  M  F  K  180
 661 cgggttctctacatagatattgatgtccaccatggagatggagtggaagaagcgttttac
      R  V  L  Y  I  D  I  D  V  H  H  G  D  G  V  E  E  A  F  Y  200
 721 accactgatagagttatgactgtttctttccacaaatttggggacttttcccaggaact
      T  T  D  R  V  M  T  V  S  F  H  K  F  G  D  F  F  P  G  T  220
 781 ggtcacataagagatgttggcgctgaaaaagggaaatactatgctctaaatgttccacta
      G  H  I  R  D  V  G  A  E  K  G  K  Y  Y  A  L  N  V  P  L  240
 841 aacgatggtatggacgatgaaagtttccgcagcttgtttagacctcttatccagaaggtt
      N  D  G  M  D  D  E  S  F  R  S  L  F  R  P  L  I  Q  K  V  260
 901 atggaagtgtatcagccagaggcagttgttcttcagtgtggtgctgactccttaagtggt
      M  E  V  Y  Q  P  E  A  V  V  L  Q  C  G  A  D  S  L  S  G  280
 961 gatcggttgggttgcttcaacttatcagtcaagggtcacgctgattgccttcggttctta
      D  R  L  G  C  F  N  L  S  V  K  G  H  A  D  C  L  R  F  L  300
1021 agatcttacaacgttcctctcatggtgttgggtggtgaagggtatactattcgaaatgtt
      R  S  Y  N  V  P  L  M  V  L  G  G  E  G  Y  T  I  R  N  V  320
1081 gcccgttgctggtgttatgagactgcagttgctgttggagtagagccggacaacaaactc
      A  R  C  W  C  Y  E  T  A  V  A  V  G  V  E  P  D  N  K  L  340
1021 ccttacaatgagtattttgagtatttcggcccagattatacgcttcatgtcgacccaagt
      P  Y  N  E  Y  F  E  Y  F  G  P  D  Y  T  L  H  V  D  P  S  360
1201 cctatggagaatttaaacacgcccaaagatatggagaggataaggaacacgttgctggaa
      P  M  E  N  L  N  T  P  K  D  M  E  R  I  R  N  T  L  L  E  380
1261 caactttcgggactaatacacgcacctagcgtccagtttcagcacacaccaccagtcaat
      Q  L  S  G  L  I  H  A  P  S  V  Q  F  Q  H  T  P  P  V  N  400
1321 cgagttttggacgagccggaagatgacatggagacaagaccaaaacctcgcatctggagt
      R  V  L  D  E  P  E  D  D  M  E  T  R  P  K  P  R  I  W  S  420
1381 ggaactgcgacttatgaatcagacagtgacgatgatgataaacctcttcatggttactca
      G  T  A  T  Y  E  S  D  S  D  D  D  D  K  P  L  H  G  Y  S  440
1441 tgtcgtggtggcgcaactacggacagggactctaccggtgaagatgaaatggatgacgat
      C  R  G  G  A  T  T  D  R  D  S  T  G  E  D  E  M  D  D  D  460
1501 aacccagagccagacgtgaatcctccatcgtcttaaaccagcttgatggtttggtgtctc
      N  P  E  P  D  V  N  P  P  S  S  *                          471
1561 ttttgccatatgataatgtcggcagatttaagaaacaagttaggggaatgaatgattctt
1621 tgatgtttttcagcaacctttgagttctgtgaaaacgctgcattgattagaacagtga
1681 caactgactagtattttggcccaagttagaaaatcagaatatgtgaaaaaaaaaaaaaa
1741 aaaaaaaagggcggccgctctagaggatccaagcttacgtacgcgtgcatgcgacgtcat
```

Figure 2A

```
   1  cacgcgtccgtaaaaatcctctcttttttctcaaccttgattcttagccatggagttctgg
                                                      M  E  F  W    4
  61  ggaattgaagttaaatcaggaaagccagttacagtgactcctgaagaaggcattcttatc
       G  I  E  V  K  S  G  K  P  V  T  V  T  P  E  E  G  I  L  I   24
 121  cacgtttctcaggcatcgcttggagaatgtaaaaacaagaagggagagtttgtgccttta
       H  V  S  Q  A  S  L  G  E  C  K  N  K  K  G  E  F  V  P  L   44
 181  catgtaaaggttgggaaccagaacttggttctgggaactctatcgactgagaacatccct
       H  V  K  V  G  N  Q  N  L  V  L  G  T  L  S  T  E  N  I  P   64
 241  cagcttttctgtgatttggtattcgacaaggagtttgagctttctcacacttggggaaaa
       Q  L  F  C  D  L  V  F  D  K  E  F  E  L  S  H  T  W  G  K   84
 301  ggaagtgtttactttgttggatacaaaactcccaacattgagccacaaggctattctgag
       G  S  V  Y  F  V  G  Y  K  T  P  N  I  E  P  Q  G  Y  S  E  104
 361  gaagaagaggaagaagaggaagaagttcctgctgggaatgctgccaaggctgtagctaaa
       E  E  E  E  E  E  E  E  V  P  A  G  N  A  A  K  A  V  A  K  124
 421  ccaaaggctaagcctgcagaagtgaagccagctgttgatgatgaagaggatgagtctgat
       P  K  A  K  P  A  E  V  K  P  A  V  D  D  E  E  D  E  S  D  144
 481  tctgacggaatggatgaagatgattctgatggtgaggattctgaggaagaagagcctaca
       S  D  G  M  D  E  D  D  S  D  G  E  D  S  E  E  E  E  P  T  164
 541  cctaagaagcctgcatcaagcaagaagagctaatgaaactacccctaaagcacctgtg
       P  K  K  P  A  S  S  K  K  R  A  N  E  T  T  P  K  A  P  V  184
 601  tcagcaaagaaggcgaaagtagcagttactcctcagaaaacagatgagaagaagaaaggg
       S  A  K  K  A  K  V  A  V  T  P  Q  K  T  D  E  K  K  K  G  204
 661  ggaaaggctgcaaaccagagcccaaagtcggccagtcaagtctcatgtggttcatgcaag
       G  K  A  A  N  Q  S  P  K  S  A  S  Q  V  S  C  G  S  C  K  224
 721  aagactttcaactcagggaatgcacttgagtctcacaacaaggccaagcacgctgctgcc
       K  T  F  N  S  G  N  A  L  E  S  H  N  K  A  K  H  A  A  A  244
 781  aagtgaagtggtttcttattagagcttgtgatttctatggaattttgcctgtagtcttta
       K  *                                                        245
 841  tgaaaccttcggattttcttatattttcttttgataacaagagtcttaatgaaagagagc
      cagttggagtcttaaaaaaaaaaaaaaaaggggcggccgc
```

Figure 2B

```
   1 gtctttcgcttctaaaaaaaaacctaacaacctctcttctctcttcctcgttcaacaaca
  61 atggagttctggggagttgcggtgacaccaaaaaacgctactaaggtgactcctgaagaa
      M  E  F  W  G  V  A  V  T  P  K  N  A  T  K  V  T  P  E  E   20
 121 gacagccttgtccacatttctcaggcttcacttgactgcacagtgaaatctggagaatct
      D  S  L  V  H  I  S  Q  A  S  L  D  C  T  V  K  S  G  E  S   40
 181  gtggttttgagtgtgactgttggtggggctaaacttgttattggaacactttcacaagac
      V  V  L  S  V  T  V  G  G  A  K  L  V  I  G  T  L  S  Q  D   60
 241 aagttccctcagattagctttgatttggttttgataaagagtttgagctttcacacagc
      K  F  P  Q  I  S  F  D  L  V  F  D  K  E  F  E  L  S  H  S   80
 301 ggtaccaaagcaaatgttcatttcattggctacaaatcccccaacatcgagcaggatgac
      G  T  K  A  N  V  H  F  I  G  Y  K  S  P  N  I  E  Q  D  D  100
 361 ttcactagttcggatgatgaggatgttcctgaagctgttcctgctcctgcccctactgct
      F  T  S  S  D  D  E  D  V  P  E  A  V  P  A  P  A  P  T  A  120
 421 gttactgccaacggaaatgctggagcagctgttgtcaaggctgacacaaagccaaaggcc
      V  T  A  N  G  N  A  G  A  A  V  V  K  A  D  T  K  P  K  A  140
 481 aaacctgccgaagtgaagcctgcagaagagaagcctgaatcagacgaggaagatgagtct
      K  P  A  E  V  K  P  A  E  E  K  P  E  S  D  E  E  D  E  S  160
 541  gatgatgaagatgagtctgaagaggatgatgactctgagaaaggaatggatgttgatgaa
      D  D  E  D  E  S  E  E  D  D  D  S  E  K  G  M  D  V  D  E  180
 601 gatgactcagatgatgacgaggaggaggattctgaggatgaagaagaggaggagactcct
      D  D  S  D  D  D  E  E  E  D  S  E  D  E  E  E  E  E  T  P  200
 661 aagaagcctgagccaatcaacaagaagaggccaaatgaatctgtatccaaaacacccgtc
      K  K  P  E  P  I  N  K  K  R  P  N  E  S  V  S  K  T  P  V  220
 721 tctggaaagaaggcaaaaccagcagcagcaccagcttctactcctcagaagacagagaag
      S  G  K  K  A  K  P  A  A  A  P  A  S  T  P  Q  K  T  E  K  240
 781 aagaaaggaggacacaccgccacaccacacccagctaagaagggtggaaagtctcctgtg
      K  K  G  G  H  T  A  T  P  H  P  A  K  K  G  G  K  S  P  V  260
 841 aatgctaaccagagccccaagtctggaggtcaatcatccggtggtaacaacaacaagaag
      N  A  N  Q  S  P  K  S  G  G  Q  S  S  G  G  N  N  N  K  K  280
 901 ccattcaactcaggcaaacaatttggtggttccaacaacaagggttctaacaagggcaag
      P  F  N  S  G  K  Q  F  G  G  S  N  N  K  G  S  N  K  G  K  300
 961 ggaaagggtagagcttaaggacgtggatcaaggagaggttttgggttttcgagtagatga
      G  K  G  R  A  *                                            305
1021 tgaaaacacttggaagtgtggttttggatttttatcttatttttattagtataacttgtta
1081 tcggatgagctattttgagtatttgcaatttctactttcctatgtaattcagtatatgaa
1141 tatttgctgaaatgagaaagaagactcgaattgcaaacaaaaaaaaaaaaaaaaaaaaa
1201 aagggcggccgc
```

Figure 3

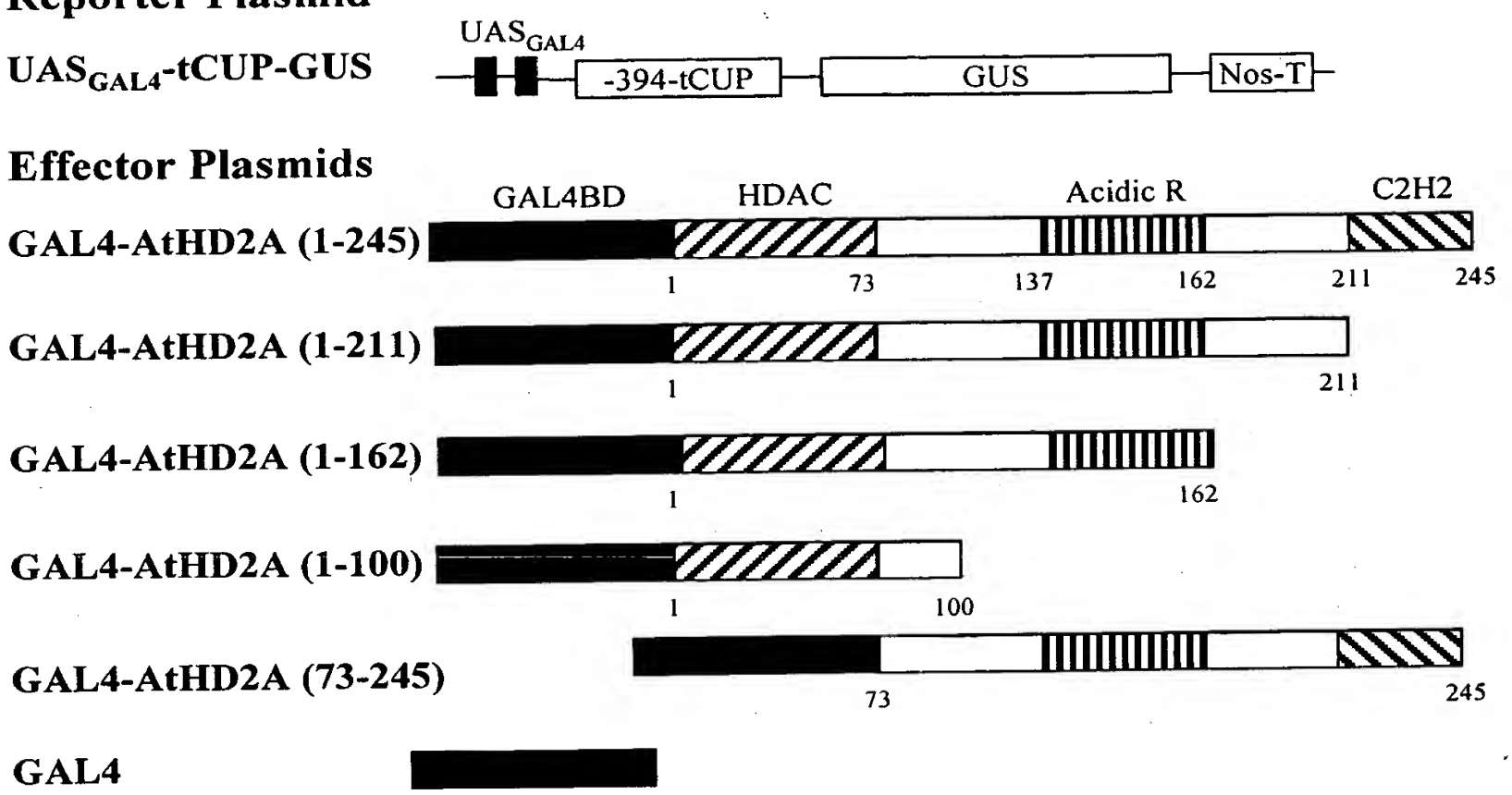
```
AtRPD3A   MD------TGG NSLAS-GPDG VKRKVCYFYD PEVGNYYYGQ GHPMKPHRIR  44
AtRPD3B   MEADESGI-- -SLPS-GPDG PKRRVSYFYE PTIGDYYYGQ GHPMKPHRIR  47
ZmRPD3    MDPSSAGSGG NSLPSVGPDG QKRRVCYFYD PDVGNYYYGQ GHPMKPHRIR  50
RPD3      MVYEATPFD- ---PITVKPS DKRRVAYFYD ADVGNYAYGA GHPMKPHRIR  46

AtRPD3A   MTHALLAHYG LLQHMQVLKP FPARERDLCR FHADDYVSFL RSITPETQQD  94
AtRPD3B   MAHSLIIHYH LHRRLEISRP SLADASDIGR FHSPEYVDFL ASVSPESMGD  97
ZmRPD3    MTHSLLARYG LLNQMQVYRP NPARERELCR FHAEEYINFL RSVTPETQQD 100
RPD3      MAHSLIMNYG LYKKMEIYRA KPATKQEMCQ FHTDEYIDFL SRVTPDNLEM  96

AtRPD3A   QI--RQLKRF NVGEDCPVFD GLYSFCQTYA GGSVGGSVKL NHGLCDIAIN 142
AtRPD3B   PSAARNLRRF NVGEDCPVFD GLFDFCRASA GGSIGAAVKL NRQDADIAIN 147
ZmRPD3    QI--RLLKRF NVGEECPVLD GLYSFCQTYA GASVGGAVKF NHGH-DIAIN 147
RPD3      --FKRESVKF NVGDDCPVFD GLYEYCSISG GGSMEGAARL NRGKCDVAVN 144

AtRPD3A   WAGGLHHAKK CEASGFCYVN DIVLAILELL KQHERVLYVD IDIHHGDGVE 192
AtRPD3B   WGGGLHHAKK SEASGFCYVN DIVLGILELL KMFKRVLYID IDVHHGDGVE 197
ZmRPD3    WSGGLHHAKK CEASGFCYVN DIVLAILELL KHHERVLYVD IDIHHGDGVE 197
RPD3      YAGGLHHAKK SEASGFCYLN DIVLGIIELL RYHPRVLYID IDVHHGDGVE 194
             **         *                    *  *   **

AtRPD3A   EAFYATDRVM TVSFHKFGDY FPGTGHIQDI GYGSGKYYSL NVPLDDGIDD 242
AtRPD3B   EAFYTTDRVM TVSFHKFGDF FPGTGHIRDV GAEKGKYYAL NVPLNDGMDD 247
ZmRPD3    EAFYTTDRVM TVSFHKFGDY FPGTGDIRDI GHSKGKYYSL NVPLDDGIDD 247
RPD3      EAFYTTDRVM TCSFHKYGEF FPGTGELRDI GVGAGKNYAV NVPLRDGIDD 244
           *      *  * *

AtRPD3A   ESYHLLFKPI MGKVMEIFRP GAVVLQCGAD SLSGDRLGCF NLSIKGHAEC 292
AtRPD3B   ESFRSLFRPL IQKVMEVYQP EAVVLQCGAD SLSGDRLGCF NLSVKGHADC 297
ZmRPD3    ESYQSLFKPI MGKVMEVFRP GAVVLQCGAD SLSGDRLGCF NLSIKGHAEC 297
RPD3      ATYRSVFEPV IKKIMEWYQP SAVVLQCGGD SLSGDRLGCF NLSMEGHANC 294

AtRPD3A   VKFMRSFNVP LLLLGGGGYT IRNVARCWCY ETGVALGVEV EDKMPEHEYY 342
AtRPD3B   LRFLRSYNVP LMVLGGEGYT IRNVARCWCY ETAVAVGVEP DNKLPYNEYF 347
ZmRPD3    VRYMRSFNVP LLLLGGGGYT IRNVARCWCY ETGVALGQEP EDKMPVNEYY 347
RPD3      VNYVKSFGIP MMVVGGGGYT MRNVARTWCF ETGLLNNVVL DKDLPYNEYY 344

AtRPD3A   EYFGPDYTLH VAPSNMENKN SRQMLEEIRN DLLHNLSKLQ HAPSVPFQER 392
AtRPD3B   EYFGPDYTLH VDPSNMENKN TPKDMERIRN TLLHNLSGLI HAPSVQFQHT 397
ZmRPD3    EYFGPDYTLH VAPSNMENKN TRQQLDDIRS ----KLSKLR HAPSVHFQER 393
RPD3      EYYGPDYKLS VRPSNMFNVN TPEYLDKVMT NIFANLENTK YAPSVQLNHT 394

AtRPD3A   PPDTETPEVD EDQEDGDKRW DPDSDMDVDD D--------R KPIPSRVKRE 434
AtRPD3B   PPVNRVLD-- ---------- EPEDDME--- ---------R KP---RIWSG 421
ZmRPD3    VPDTEIPEQD EDQDDPDERH DPDSDMEVDD HKAVEESSRR SILGIKIKRE 443
RPD3      P--------- --------R- DAEDLGDVEE DSA------- ---------- 409

AtRPD3A   AVEPDTKDKD GLKGIMERGK GCEVEVDESG STKVT---GV NPVGVEEAS- 480
AtRPD3B   TATYESDSDD DDKPL--HGY SC-------- --RGGATTDR DSTGEDEMDD 459
ZmRPD3    FGENATRVQD GGRVASEH-R GLEPMAEDIG SSKQAPQADA SAMAIDEPSN 492
RPD3      ---------- ---------- ---------- ---------- ------EAKD 413

AtRPD3A   VKMEEEGTNK GGAEQAFPPK T                                 501
AtRPD3B   DNPEPDVNP- -------PSS                                  471
ZmRPD3    VKNEPESSTK LQGQAAAYHK P                                 513
RPD3      TKGGSQYARD LHVEHDNEFY                                   433
```

Figure 4

```
AtHD2A      MEFWGIEVKS GKPVTVTPEE GILIHVSQAS LGECKNKKGE FVPLHVKVGN  50
AtHD2B      MEFWGVAVTP KNATKVTPEE DSLVHISQAS L-DCTVKSGE SVVLSVTVGG  49
ZmHD2       MEFWGLEVKP GSTVKCEPGY GFVLHLSQAA LGES--KKSD NALMYVKIDD  48
                                   *
AtHD2A      QNLVLGTLST ENIPQLFCDL VFDKEFELSH TWGKGSVYFV GYKTPNIEPQ 100
AtHD2B      AKLVIGTLSQ DKFPQISFDL VFDKEFELSH SGTKANVHFI GYKSPNIEQD  99
ZmHD2       QKLAIGTLSV DKNPHIQFDL IFDKEFELSH TSKTTSVFFT GYKVEQPFEE  98
                                   *
AtHD2A      GYSEEEEEE- EEEVPAGNAA ---------- ---KAVAKPK AKPAEVKPAV 136
AtHD2B      DFTSSDDEDV PEAVPAPAPT AVTANGNAGA AVVKADTKPK AKPAEVKPAE 149
ZmHD2       DEMDLDSEDE DEELNVP--- VVKENGKADE KKQKSQEKAV AAPSKSSPDS 145

AtHD2A      ----DDEEDE SDS-D----- -------GMD EDDSDGEDSE EEE------- 162
AtHD2B      EKPESDEEDE SDDEDESEED --DDSEKGMD VDEDDSDDDE EEDSEDEEEE 197
ZmHD2       KKSKDDDDSD EDETDDSDED ETDDSDEGLS SEEGDDDSSD EDDTSDDEEE 195

AtHD2A      PTP--KKPAS -SKKRANETT PKAPVSAKKA KVAV----TP QKTDEKK--- 202
AtHD2B      ETP--KKPEP INKKRPNESV SKTPVSGKKA KPAAAPASTP QK-----TEK 240
ZmHD2       DTPTPKKPEV GKKRPAESSV LKTPLSDKKA KVATPSS--- QKTGGK---- 238

AtHD2A      -KGGKA---- ---------- --------AN QSPKSASQVS CGSC-KKTFN 229
AtHD2B      KKGG--HTAT PHPAK----- KGGKSPVNAN QSPKSGGQSS GGNNNKKPFN 283
ZmHD2       -KGAAVHVAT PHPAKGKTIV NNDKSVKSPK SAPKSGGSVP CKPCSK-SFI 286

AtHD2A      SGNALE-SHN KAKHAAAK                                     245
AtHD2B      SGKQFGGSNN KGSNKGKGKG RA                                305
ZmHD2       SETALQA-HS RAKMGASESQ VQ                                307
```

Figure 10

A


Reporter Plasmid
UAS$_{GAL4}$-tCUP-GUS
UAS$_{GAL4}$
-394-tCUP
GUS
Nos-T
Effector Plasmids
GAL4BD
HDAC
Acidic R
C2H2
GAL4-AtHD2A (1-245)
1
73
137
162
211
245
GAL4-AtHD2A (1-211)
1
211
GAL4-AtHD2A (1-162)
1
162
GAL4-AtHD2A (1-100)
1
100
GAL4-AtHD2A (73-245)
73
245
GAL4

B

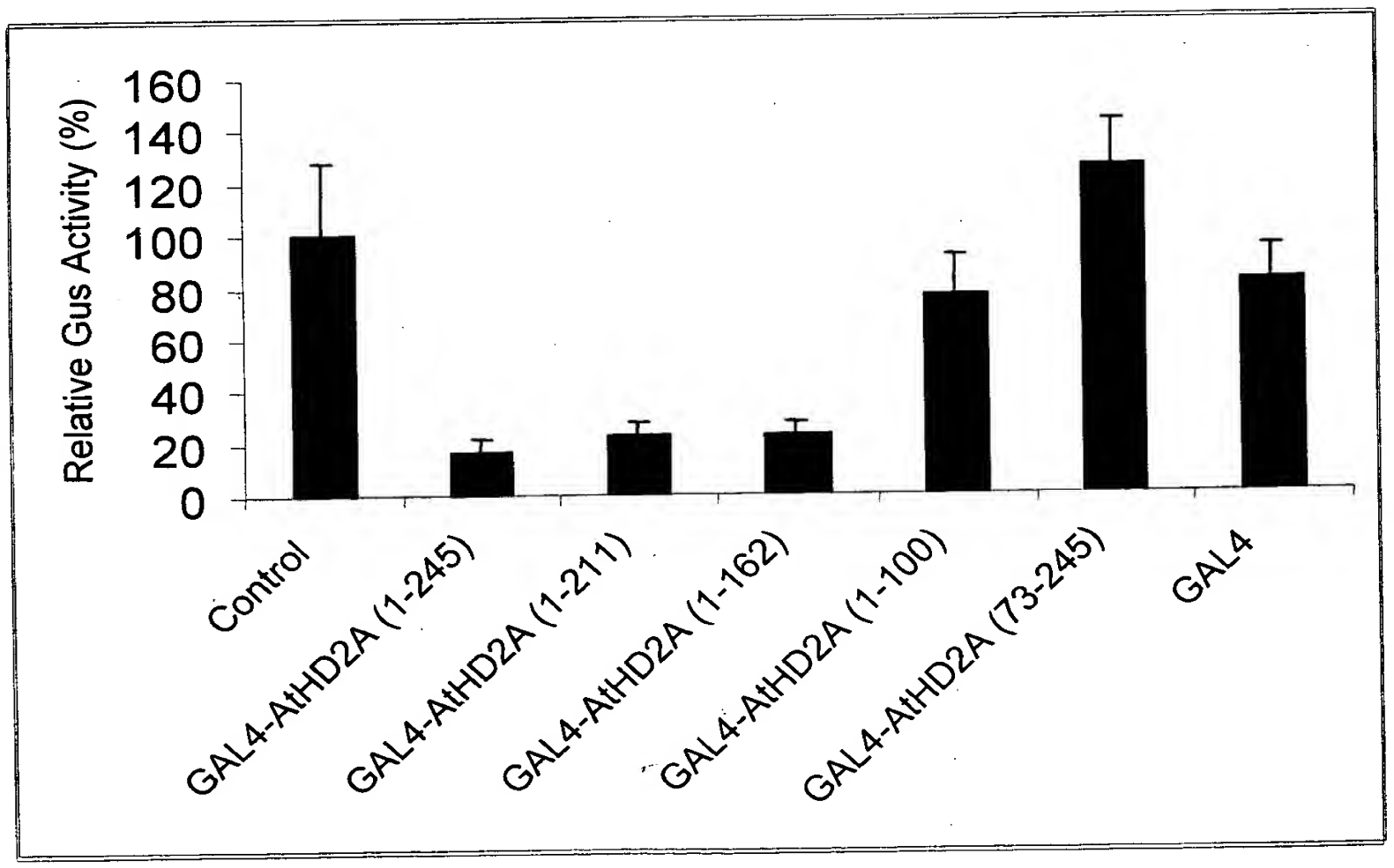

Relative Gus Activity (%)
160
140
120
100
80
60
40
20
0
Control
GAL4-AtHD2A (1-245)
GAL4-AtHD2A (1-211)
GAL4-AtHD2A (1-162)
GAL4-AtHD2A (1-100)
GAL4-AtHD2A (73-245)
GAL4

FIGURE 12

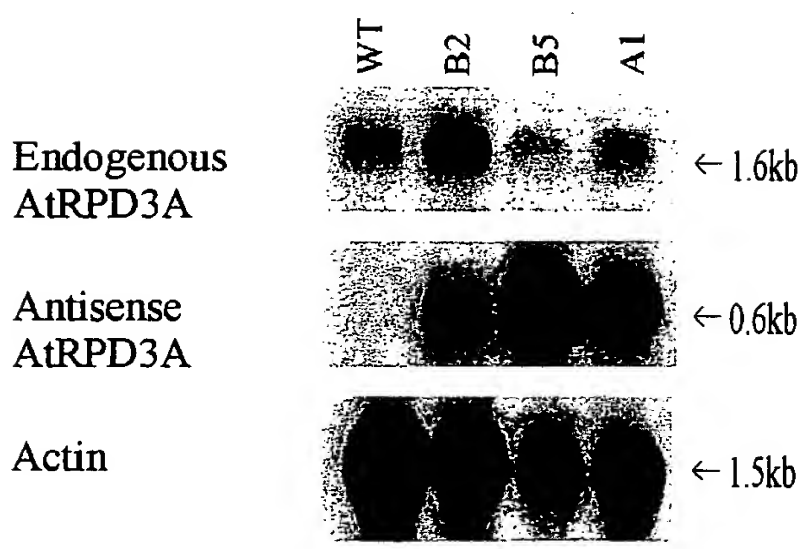

WT
B2
B5
A1
Endogenous AtRPD3A
← 1.6kb
Antisense AtRPD3A
← 0.6kb
Actin
← 1.5kb

FIGURE 13

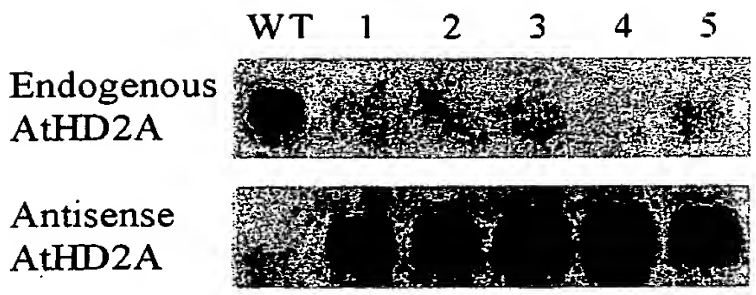


FIGURE 14

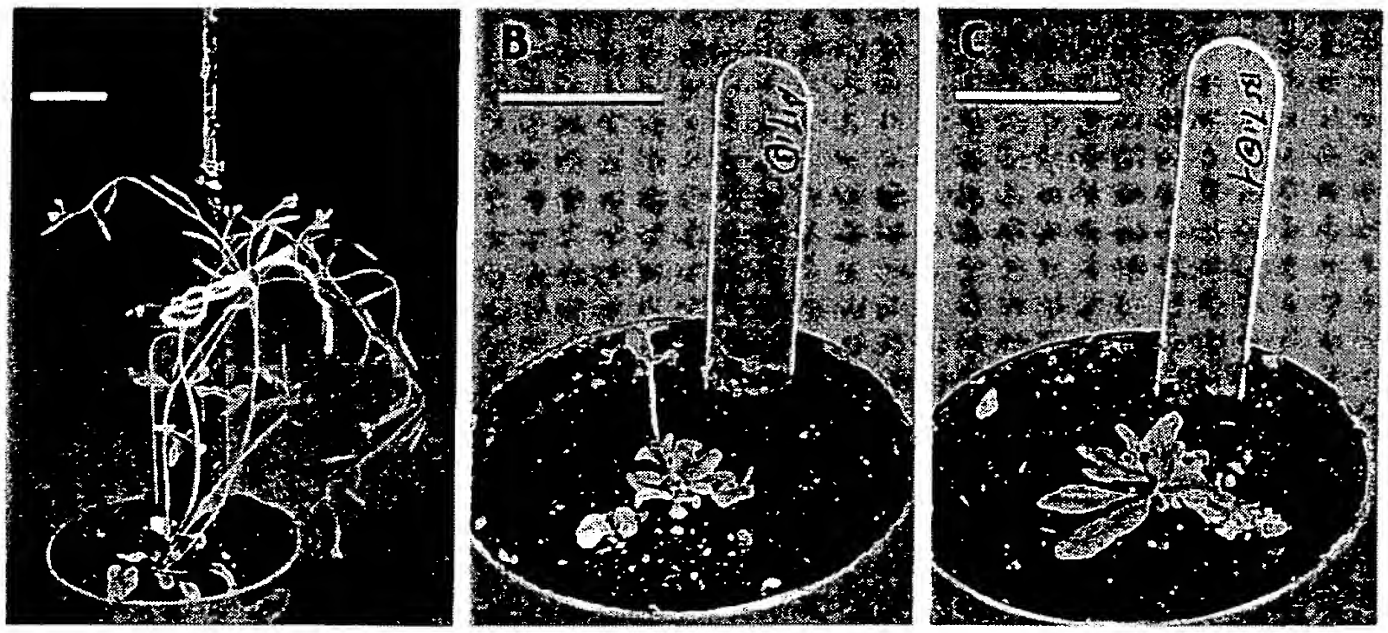


FIGURE 15

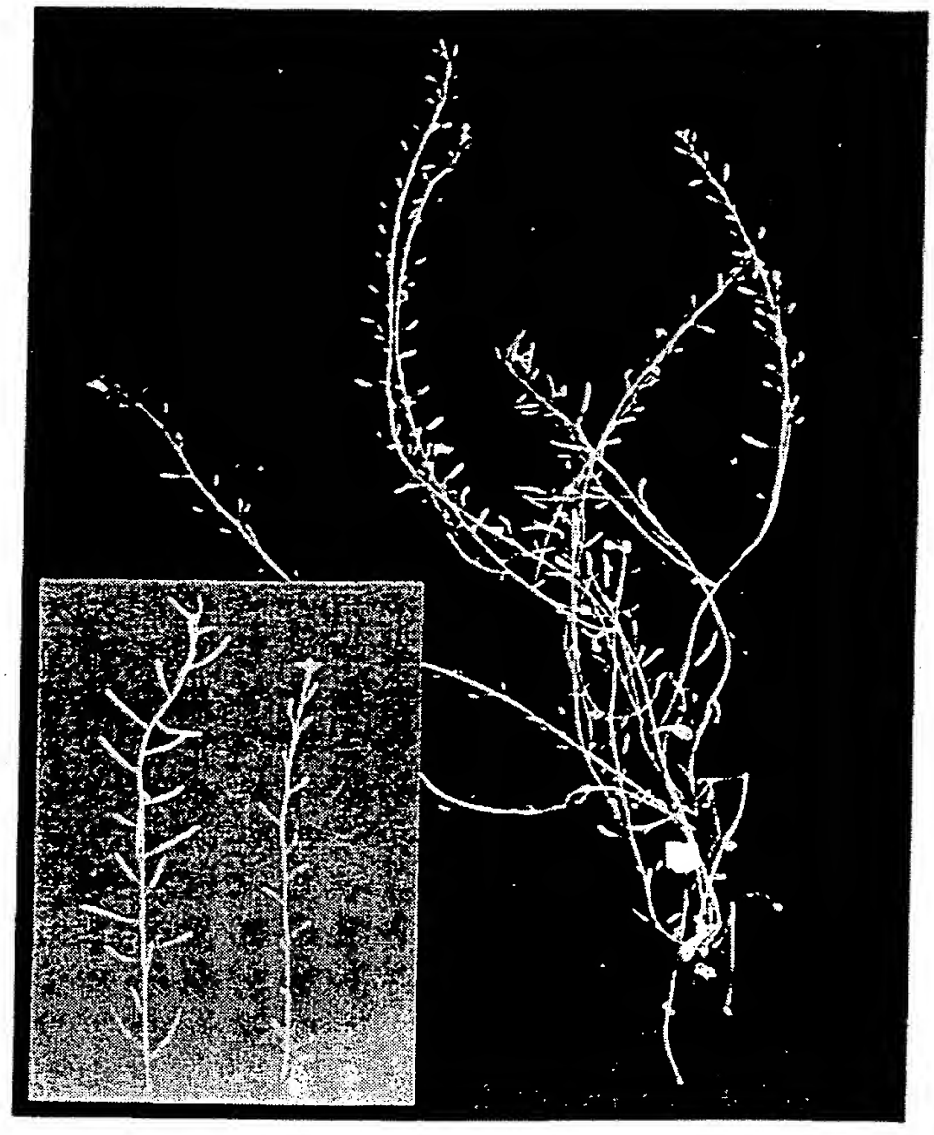
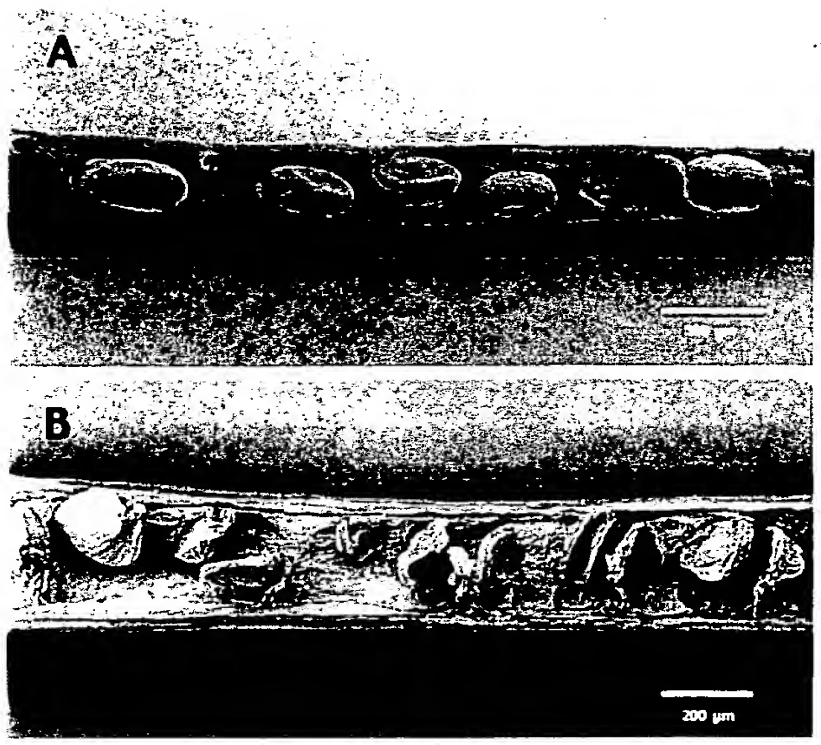


FIGURE 16



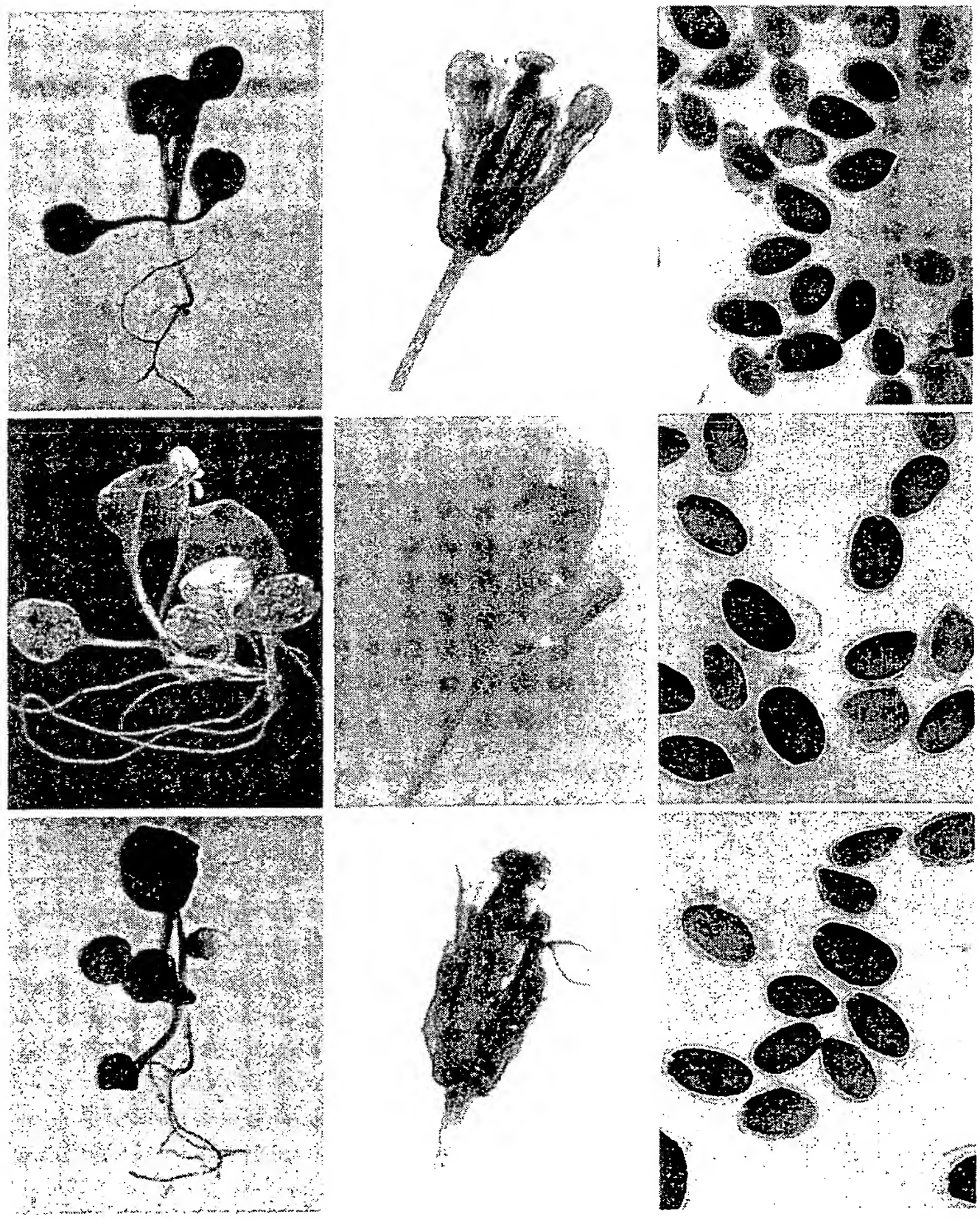
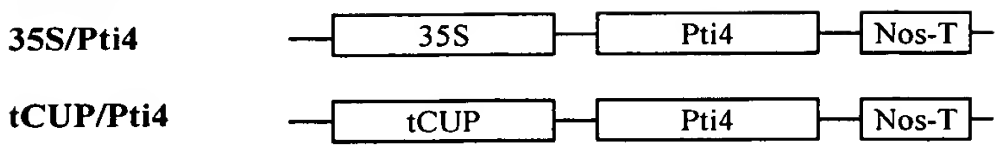


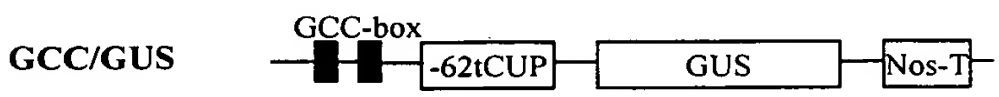
Figure 18

A

Effector Plasmids



Reporter Plasmid



B

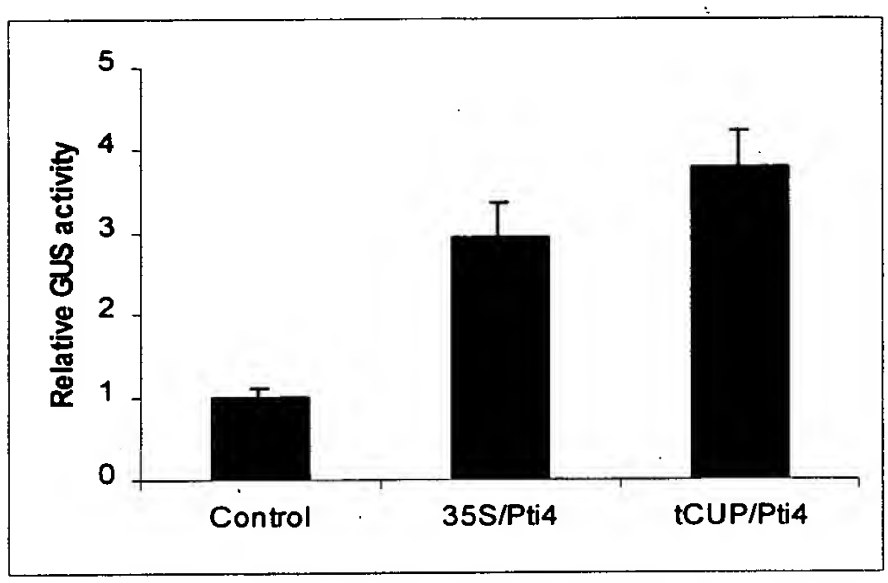


Figure 20

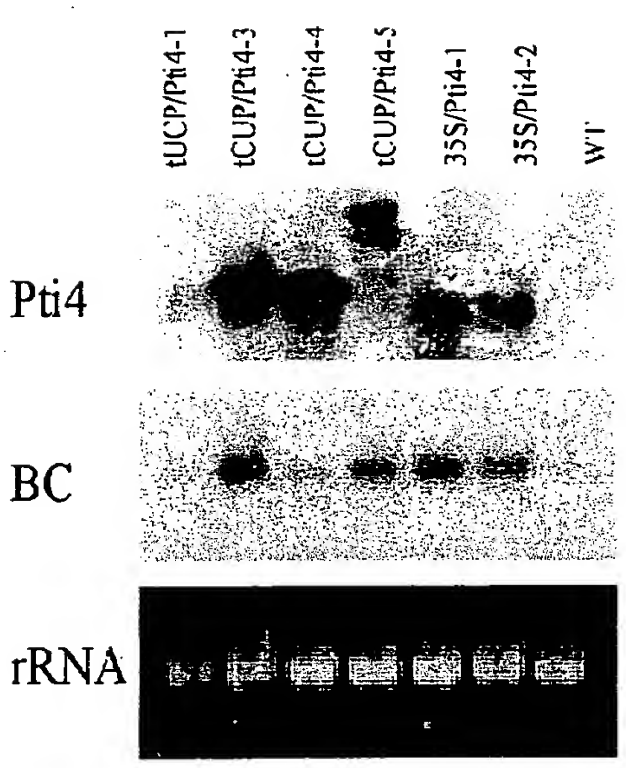

Pti4
BC
rRNA
tUCP/Pti4-1
tCUP/Pti4-3
tCUP/Pti4-4
tCUP/Pti4-5
35S/Pti4-1
35S/Pti4-2
WT

Figure 21

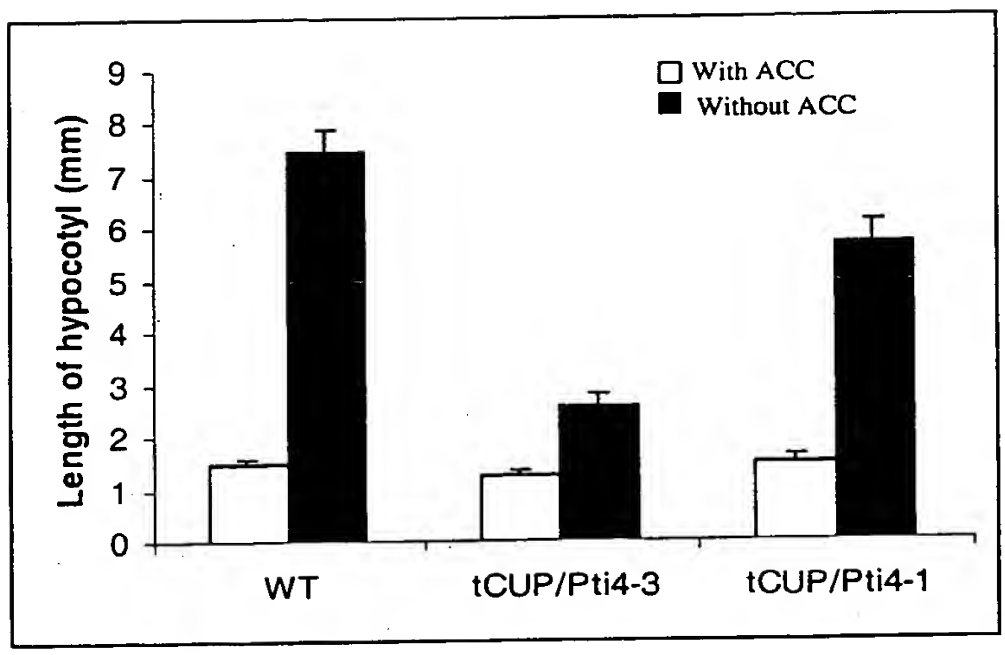

With ACC
Without ACC
Length of hypocotyl (mm)
0
1
2
3
4
5
6
7
8
9
WT
tCUP/Pti4-3
tCUP/Pti4-1

Figure 22